

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1-22. (Canceled)

23. (Currently Amended) A cartridge containing a particulate material wherein the cartridge includes:

- an inner space for housing the particulate material;
- an inlet arranged to permit the introduction of a liquid into the inner space;
- an outlet arranged to permit the discharge of liquid from the inner space; and
- at least a first filter arranged at the outlet, said filter configured and to permit passage of the liquid through the filter, but to prevent passage of the particulate material through the filter, wherein the filter permits the liquid to pass through the filter in a filter direction (x), wherein the filter includes at least one slit-shaped opening, which has a first extension and a second extension being substantially perpendicular to the filter direction (x) and to the first extension, wherein the second extension is significantly shorter than the first extension and is also significantly shorter than the length of the slit-shaped opening in the filter direction (x).

24. (Previously Presented) A cartridge according to claim 23, wherein the cartridge includes a second filter arranged at the inlet and to permit passage of the liquid through the filter, but to prevent passage of the particulate material through the filter, wherein the second filter permits the liquid to pass through the filter in a filter direction (x), wherein the second filter includes at least one slit-shaped opening, which

has a first extension and a second extension being substantially perpendicular to the filter direction (x) and to the first extension, wherein the second extension is significantly shorter than the first extension.

25. (Canceled)

26. (Previously Presented) A cartridge according to claim 23 or 24, wherein the second extension is equal to or less than 0.12 mm.

27. (Currently Amended) A cartridge according to claim 23 or 24, wherein the second extension is equal to or less than 0.10 mm ~~or 0.08 mm~~.

28. (Previously Presented) A cartridge according to claim 23 or 24, wherein the second extension is equal to or more than 0.02 mm.

29. (Previously Presented) A cartridge according to claim 23 or 24, wherein the second extension is equal to or more than 0.04 mm.

30. (Previously Presented) A cartridge according to claim 23 or 24, wherein the second extension is approximately 0.06 mm.

31. (Previously Presented) A cartridge according to claim 23 or 24 wherein the filter is made of a polymer material, including one of polypropylene and polycarbonate.

32. (Previously Presented) A cartridge according to claim 23 or 24, wherein the first extension is substantially perpendicular to the filter direction (x).

33. (Previously Presented) A cartridge according to claim 23 or 24, wherein the filter includes a filter element wherein the slit-shaped opening extends through the filter element.

34. (Previously Presented) A cartridge according to claim 33, wherein the filter includes a plurality of slit-shaped openings, which extend through the filter element.

35. (Currently Amended) A cartridge according to claim 34, wherein the first extension extends towards a centre point of the filter element.

36. (Previously Presented) A cartridge according to claim 33, wherein the filter element has a shape of a substantially plane disc.

37. (Previously Presented) A cartridge according to claim 23 or 24, wherein the filter element of the second filter has a conical shape.

38. (Currently Amended) A cartridge according to claim 33, wherein the slit-shaped opening of the filter element has a first end and a second end, wherein the second extension of the slit-shaped opening increases from a minimum value ~~at one~~ at one of the ends of the slit-shaped opening to a maximum value at the other end of the opening.

39. (Currently Amended) A cartridge according to claim 23 or 24, wherein the filter includes a filter element formed by a first disc and a second disc, which are arranged in parallel with each other and separated from each other by an interspace that ~~form~~ forms the slit-shaped opening.

40. (Previously Presented) A cartridge according to claim 39, wherein the interspace is formed by distance members arranged in the interspace between the discs, each of said distance members having a predetermined height corresponding to the second extension.

41. (Previously Presented) A cartridge according to claim 40, wherein each of said distance members includes a projection extending from one of the first disc and the second disc.

42. (Previously Presented) A cartridge according to claim 39, wherein the first disc is provided with at least one aperture forming an outlet passage to the interspace, and that the second disc is provided with at least one aperture forming an inlet passage from the interspace.

43. (Previously Presented) A cartridge according to claim 23 or 24, wherein the filter is made through an injection moulding process.

44. (Currently Amended) A cartridge arranged to contain a particulate material, wherein the cartridge includes:

an inner space for housing the particulate material;

an inlet arranged to permit the introduction of a liquid into the inner space;

an outlet arranged to permit the discharge of liquid from the inner space;

at least a first filter; and

at least a second filter arranged at the inlet and to permit passage of the liquid through the filter, but to prevent passage of the particulate material through the filter,

wherein the second filter permits the liquid to pass through the filter in a filter direction (x), wherein the second filter includes at least one slit-shaped opening, which has a first extension and a second extension being substantially perpendicular to the filter direction (x), and to the first extension, wherein the second extension is significantly shorter than the first extension and is also significantly shorter than the length of the slit-shaped opening in the filter direction (x).

45. (Canceled)

46. (Currently Amended) A cartridge according to ~~one of claims~~ claim 44-~~or 45~~, wherein the second extension is equal to or less than 0.12 mm.

47. (Currently Amended) A cartridge according to ~~one of claims~~ claim 44-~~or 45~~, wherein the second extension is equal to or less than 0.10 mm ~~or 0.08 mm~~.

48. (Currently Amended) A cartridge according to ~~one of claims~~ claim 44-~~or 45~~, wherein the second extension is equal to or more than 0.02 mm.

49. (Currently Amended) A cartridge according to ~~one of claims~~ claim 44-~~or 45~~, wherein the second extension is equal to or more than 0.04 mm.

50. (Currently Amended) A cartridge according to ~~one of claims~~ claim 44-~~or 45~~, wherein the second extension is approximately 0.06 mm.

51. (Currently Amended) A cartridge according to ~~one of claims~~ claim 44-~~or 45~~, wherein the filter is made of a polymer material, including one of polypropylene and polycarbonate.

52. (Currently Amended) A cartridge according to ~~one of claims~~ claim 44-
~~or 45~~, wherein the first extension is substantially perpendicular to the filter direction (x).

53. (Currently Amended) A cartridge according to ~~one of claims~~ claim 44-
~~or 45~~, wherein the filter includes a filter element, wherein the slit-shaped opening
extends through the filter element.

54. (Previously Presented) A cartridge according to claim 53, wherein the
filter includes a plurality of slit-shaped openings, which extend through the filter element.

55. (Previously Presented) A cartridge according to claim 54, wherein the
first extension of each slit-shaped opening extends in a radial direction towards a centre
point of the filter element.

56. (Previously Presented) A cartridge according to claim 53, wherein the
filter element has a conical shape.

57. (Previously Presented) A cartridge according to claim 53, wherein the
filter includes a peripheral support portion connected to the filter element and abutting
an inner wall of the cartridge.

58. (Previously Presented) A cartridge according to claim 57, wherein the
peripheral support portion has a peripheral surface and includes a plurality of ridges
projecting from the peripheral surface and abutting the inner wall of the cartridge,
wherein a thin gap is formed between the peripheral surface and the inner wall, said
gap providing a further passage for the liquid.

59. (Currently Amended) A cartridge according to claim 44 ~~or 45~~, wherein the slit-shaped opening of the filter element has a first end and a second end wherein the second extension of the slit-shaped opening decreases from a maximum value at the first end of the slit-shaped opening to a minimum value at the second end of the opening.

60. (Previously Presented) A cartridge according to claim 44, wherein the filter is made through an injection moulding process.

61. (Withdrawn) A use of a filter in a cartridge containing a particulate material, wherein the cartridge includes:
an inner space for housing the particulate material;
an inlet arranged to permit the introduction of a liquid into the inner space;
an outlet arranged to permit discharge of liquid from the inner space; and
at least one filter arranged at the outlet and to permit passage of the liquid through the filter, but to prevent passage of the particulate material through the filter, wherein the filter permits the liquid to pass through the filter in a filter direction (x), wherein the filter includes at least one slit-shaped opening, which has a first extension, the use including the step of supplying said liquid to the cartridge in such a way that the liquid passes through the particulate material and thereby dissolves at least a part of the particulate material to form a liquid solution.

62. (Withdrawn) A use according to claim 61, wherein the liquid is a dialysis liquid.

63. (Withdrawn) A use according to claim 61 or 62, wherein the particulate material includes bicarbonate and/or sodium chloride.

64. (Withdrawn) A use according to claim 61, wherein the liquid includes a cleaning substance.

65. (Withdrawn) A system for preparing a liquid solution for a medical procedure, the system including:

a cartridge containing a particulate material in an inner space thereof and including an inlet and an outlet;

a first liquid conduit having a first end communicating with a source of liquid to withdraw the liquid into the first liquid conduit and a second end;

a second liquid conduit having a first end communicating with a source of liquid and a second end communicating with the inlet of the cartridge for introducing the liquid into the inner space to produce a concentrate liquid solution containing at least a part of the particulate material dissolved in the liquid;

a third liquid conduit communicating with the outlet of the cartridge and with a mixing point in the first liquid conduit intermediate said first and second ends for conducting said concentrate liquid solution from the cartridge into said first liquid conduit to be mixed with the liquid being conducted through the first liquid conduit to thereby produce said liquid solution in the first liquid conduit for delivery to said second end of the first liquid conduit; and

at least one filter arranged at the outlet and to permit passage of the liquid through the filter, but to prevent passage of the particulate material through the filter, wherein the filter permits the liquid to pass through the filter in a filter direction (x),

wherein the filter includes at least one slit-shaped opening, which has a first extension and a second extension being substantially perpendicular to the filter direction (x) and to the first extension, wherein the second extension is significantly shorter than the first extension.

66. (Withdrawn) A system according to claim 65, wherein the cartridge includes a second filter arranged at the inlet and to permit passage of the liquid through the filter, but to prevent passage of the particulate through the filter, wherein the second filter permits the liquid to pass through the filter in a filter direction (x), wherein the second filter includes at least one slit-shaped opening, which has a first extension and a second extension being substantially perpendicular to the filter direction (x) and to the first extension, wherein the second extension is significantly shorter than the first extension.

67. (Withdrawn) A system according to claim 65 or 66, wherein the filter is intended to permit passage of a liquid through the filter and thus the cartridge, but to prevent passage of the particulate material, wherein the filter permits the liquid to pass through the filter in a filter direction (x), the filter includes at least one slit-shaped opening being substantially perpendicular to the filter direction (x) and to the first extension, wherein the second extension is significantly shorter than the first extension, said second extension being significantly shorter than the length of the slit-shaped opening in the filter direction (x).

68. (Withdrawn) A system according to claim 65, wherein the liquid is a dialysis liquid.

69. (Withdrawn) A system according to claim 65, wherein the particulate material includes bicarbonate and/or sodium chloride.

70. (New) A cartridge according to claim 23 or 24, wherein the second extension is equal to or less than 0.08 mm.

71. (New) A cartridge according to claim 44, wherein the second extension is equal to or less than 0.08 mm.